Section 3: children and young people

Dental health

a single version of the truth

NHS Wiltshire Clinical Commissioning Group

Wiltshire Council
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Outcome Frameworks Summary

The Public Health Outcomes Framework for England, 2013-2016[1] outlines the overarching vision for public health as "to improve and protect the nation's health and wellbeing, and improve the health of the poorest fastest". The following indicators from this framework are relevant to this section.

Framework	Reference	Indicator
Public Health	4.2	Tooth decay in children aged five years

Edition

Edition	Version no.	Changes/Comments

Executive summary

The dental health of children in Wiltshire is generally good.

The average number of decayed, filled or missing teeth per 5-year old child in Wiltshire in this was 0.75 compared with 0.94 nationally which is significantly lower (2011/12 survey).

The average level of tooth decay (number of decayed, missing or filled teeth) in 12-year olds in Wiltshire was 0.8 per child; which was slightly higher than that reported in either the South West or in England, but neither difference was significant.

There are inequalities in dental health within Wiltshire with higher levels of tooth decay in relatively deprived areas.

According to the most recent figures available 48.7% of the Wiltshire population (61.0% of children) decided to access NHS dental services in the previous 24 months. Although these proportions are increasing faster than regional or national averages, the percentage of Wiltshire residents accessing NHS dental services is still below the regional and national average.

Why this area is important?

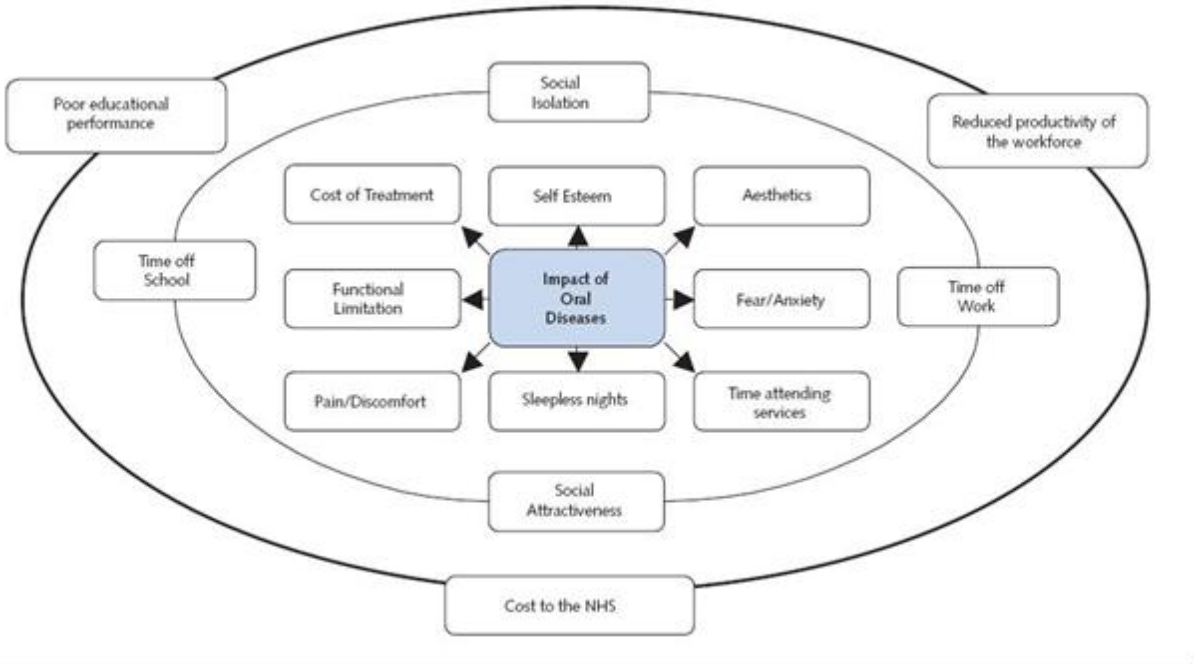
The following introduction is taken from the Wiltshire Oral Health Improvement Strategy and Action Plan 2010-2015[2].

Oral health is an integral part of general health and concerns itself with the health of dental tissues (the teeth and supporting bone) and the soft tissues of the mouth and gums. Dental disease is still commonplace in England, despite significant improvements in dental health since the 1970s with the advent of fluoridated toothpaste. Figure 1 shows how oral diseases and conditions have significant impacts upon quality of life, including sleep disturbances, dietary restriction, social limitation and absence from school and work. Uncontrolled, oral diseases can be life-threatening.

There is also national evidence that inequalities in oral health are persisting and in fact may be worsening. The ageing population brings with it more complex issues; as people retain more natural teeth longer so they need more dental treatment into old age compared with previous generations. However, there have been significant improvements in oral health in England over the past 40 years and England now compares very favourably with the rest of Europe and North America.

Rising expectations for oral health have accompanied overall reductions in disease levels. Just as there are inequalities in the experience of oral disease, so too there are variations in how people value their oral health.

Figure 1: Impact of oral diseases



The two most common dental diseases are dental caries (tooth decay) and periodontal disease (gum disease). The most serious oral disease is oral cancer with a high death rate. There are also several other oral conditions that can affect the mouth such as tooth wear and developmental disorders such as cleft lip and palate, orthodontic malocclusion and disorders of tooth formation.

The causes of oral diseases are multi-factorial but other than the developmental conditions, the risk of developing oral disease is mainly determined by lifestyle factors such as poor diet, particularly diets with frequent sugar or acidic drink consumption, the use of tobacco, excessive alcohol consumption, poor oral hygiene and the inadequate use of fluorides.

Deprivation as with many diseases is a key determinant of poor oral health and underlies many of the adverse lifestyle behaviours linked to oral disease.

What are the needs of the population?

The Oral Health Improvement Strategy and Action Plan[3] provides detailed information on the needs of Wiltshire's residents. The following extracts provide a summary of the information on children's dental health and have been updated to reflect the currently available data.

Prevalence of tooth decay

3 year olds

The NHS dental epidemiology programme for the academic year 2012/13 will focus on three year old children with data collated nationally and results produced at CCG

and local authority level. The survey period began September 2012 and data collection ends 30 June 2013.

5 year olds

For 5 year olds in 2011/12 the average mean number of decayed, filled or missing teeth ($d_3$mft) in Wiltshire was lower than the average in the South West, and was statistically significantly lower than the average in England. The average number of decayed, filled or missing teeth per child in Wiltshire was 0.75 compared with 0.94 nationally.

In order to examine the impact of inequalities in oral health it is important to look not just at the average decay experience across the county (which includes both children with decay and the majority who have no decay) but also the dental health needs just in those children who actually have dental disease. 5 year old children with decay in Wiltshire have on average nearly three decayed teeth each (2.87). This is lower than the South West average (3.03) and statistically significantly lower than the national average (3.38).

12 year olds

The first surveys of the secondary or adult dentition are at 12 years of age and the most recent survey was undertaken in 2008/09. This showed that the average level of tooth decay (number of decayed, missing or filled teeth) in Wiltshire was 0.8 per child; which was slightly higher than that reported in either the South West or in England, but neither difference was significant.

The provisional results for 2008/09 gave cause for concern because they hinted at a statistically significant difference in decayed untreated teeth (D3T) in Wiltshire compared with the previous survey in 2001. However, final weighted data from 2008/09 provides a D3T figure for Wiltshire of 0.46 (compared to the provisional 0.72) and shows a continuing downward trend. However, this figure is statistically significantly higher than the England value of 0.32.

Similarly the final weighted and validated value for overall decay experience (D3MFT) in Wiltshire's 12-year olds is 34.1% (compared to the provisional 44.1%) and again this evidences a downward trend since 1996. The comparable England value is 33.4% and is not statistically significantly different from the Wiltshire value.

The Need for Orthodontic Treatment in Wiltshire

Orthodontic malocclusion covers a wide range of issues from mild crowding of the teeth to the severe malformations associated with cleft lip and palate and other facial deformities. Although some severe irregularities can affect the function of the teeth or damage oral health, the main effect of orthodontic treatment is on facial aesthetics, the quality of life and psycho-social well-being. The prevalence of malocclusion is relatively stable and does not vary significantly from area to area nor is its prevalence affected by deprivation. Most people needing orthodontic treatment receive this in their early teens. A small number of children receive treatment before this age, sometimes referred to as interceptive treatment.

A supplementary orthodontic needs assessment[4] has used the latest epidemiological data combined with existing methodologies for estimating the clinical orthodontic

needs of children living in Wiltshire. The proportion of this clinical need that is likely to be expressed as demand has been further estimated using a range of proportions in Wiltshire and England as whole. There are an estimated 2,033 12 year old children in Wiltshire with untreated clinical orthodontic need and an estimated 1,118 likely to seek treatment. This range is higher than research evidence in terms of the conversion of clinical need into demand and also higher than that recommended by the Department of Health. The calculations are therefore very unlikely to underestimate the amount of treatment needed to meet the needs of Wiltshire's child population.

The amount of orthodontic treatment measured in UOAs commissioned by the PCT from both Specialists working in primary care and also from Dentists with a Special Interest in Orthodontics would seem to be more than adequate to meet the needs of Wiltshire's children being treated in Wiltshire especially given the outflow of children from the county for treatment in the North and West of the county.

Current service provision

Access to dentistry

The Oral health needs assessment quoted data from 2009 that showed that the percentage of Wiltshire's population had accessed NHS dental services in the previous 24 months was below the regional and national average. In 2009/10 the PCT received an additional £3.1 million and with this commissioned additional dental services.

The latest comparable figures[5], for the 2 year period up to 31 March 2013, show that 48.7% of the total population had accessed NHS dental services in the previous 24 months and 61.0% of children had. These figures are still below the regional and national average but access in Wiltshire has increased by around double of that in the region and England overall.

Table 1: Change in % of total population accessing NHS dental care

	% of population seen in previous 24 months (31 March 2012)	% of population seen in previous 24 months (31 Mar 2013)	% point change
Wiltshire	50.4%	48.7%	1.7%
South West	56.1%	56.4%	0.3%
England	56.6%	56.1%	0.5%

Table 2: Change in % of child population accessing NHS dental care

	% of population seen in previous 24 months (31 March 2012)	% of population seen in previous 24 months (31 Mar 2013)	% point change
Wiltshire	63.2%	61.0%	2.2%
South West	71.8%	71.3%	0.5%
England	70.9%	69.1%	1.8%

Oral health promotion

There is a recently launched oral health promotion project taking place in schools and children's centres in Wiltshire. The project aims are:

- To link Oral Health into health promotion projects currently being done in the area, building links with other health professionals. Standardise dental message across multi-agencies, statutory and voluntary. Provide a dental information resource for other health professionals.
- To improve relationships between dental teams and residents of Wiltshire Community Area, resulting in an increased up-take of dental services.
- To increase knowledge of oral health and create a culture in which behavioural changes can lead to development of a healthier, safer lifestyle.
- To increase self-esteem and empower parent carers to take more control of their own and their children's dental health.
- To support or encourage the implementation of healthy school policies that will support a healthy community culture.

What do service users / the public think?

Wiltshire's Health Related Behaviour Survey[6] in 2011 found that 85% of surveyed pupils at secondary schools and 81% at primary schools cleaned their teeth twice (on the day previous to the survey). Boys were less likely to clean their teeth regularly though with only 77% in Year 8 and 75% in Year 10 having cleaned them twice the day before the survey. 16% of primary school children said they had a filling on their last visit to the dentist.

What works and what resources are there?

NICE guidance

The NICE dental recall clinical guideline[7] helps clinicians assign recall intervals between oral health reviews that are appropriate to the needs of individual patients. The recommendations apply to patients of all ages (both dentate and edentulous) receiving primary care from NHS dental staff in England and Wales. The guideline takes into account the potential of the patient and the dental team to improve or maintain the patient's quality of life and to reduce morbidity associated with oral and dental disease.

The recommendations take account of the impact of dental checks on: patients' well-being, general health and preventive habits; caries incidence and avoiding restorations; periodontal health and avoiding tooth loss; and avoiding pain and anxiety.

Delivering Better Oral Health

Delivering Better Oral Health: An evidence-based toolkit for prevention was updated in July 2009: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_102331

This document provides practical, evidence-based guidance to help promote oral health and prevent oral disease in patients. It is intended for use throughout dental care services.

Securing excellence in commissioning NHS dental services

Securing Excellence in commissioning NHS dental services focuses on commissioning the entire dental pathway as an integrated model of service delivery. http://www.england.nhs.uk/wp-content/uploads/2013/02/commissioning-dental.pdf

Dentistry statistics

The Information Centre for health and social care provides information and data on dentistry, dentists and dental payments: http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry

Challenges for consideration

The following challenges are based upon the key issues and recommendations contained in the Wiltshire Oral Health Improvement Strategy and Action Plan 2010-2015[8].

There are inequalities in dental health within Wiltshire with higher levels of tooth decay in relatively deprived areas.

Given the diverse water supply water fluoridation is not likely to be implemented in the short to medium term. Other programmes will be needed to increase fluoride use particular in high need areas.

Appropriate dental services need to be available for other high need groups including the dependents of military staff and gypsies/travellers.

Wiltshire's Oral health promotion team undertake a number of initiatives linked to national health promotion and educational objectives. The Local Authority will want to ensure that these initiatives continue to have a sound evidence base of effectiveness, are targeted to the high need areas and the outcomes are evaluated.

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[1] Department of Health http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358]
[2] Oral Health Improvement Strategy and Action Plan 2010-2015, NHS Wiltshire, 2010.
[3] Oral Health Improvement Strategy and Action Plan 2010-2015, NHS Wiltshire, 2010.
[4] The Need for Orthodontic Treatment in Wiltshire – an update, 2012 www.intelligencenetwork.org.uk/EasysiteWeb/getresource.axd?AssetID=54391&servicetype=Attachment
[5] NHS Dental Statistics for England: 2012/13, Third quarterly report. Copyright © 2012, Health and Social Care Information Centre, Dental and Eye Care Team.
[6] Wiltshire Health Related Behaviour Survey, 2011 (NHS Wiltshire and Wiltshire Council). url: http://www.wiltshirehealthyschools.org/partnership-projects/wiltshire-health-related-behaviour-survey/
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